

USPS Pricing Engine SDK

December 17, 2021

Summary

This is the Domestic and International Pricing Engine SDK (version 11.10.0.0) for the January 2022 Price Change Release. The following is a list of enhancements included in this release.

BNS 65285 - Omnibus Price Change (Jan 2022)

The Price Engine supports the January 2022 Domestic and International prices changes.

Price Engine, Dimensions Update for Expedited Packaging

Price Engine Calculators updated the dimensions reference for Expedited Packaging mail shapes

Item	Current Outside Dimensions	New Outside dimensions
Priority Mail Large Flat Rate Box	6" (H) x 12-1/4" (W) x 12-1/4" (L)	6" (H) x 12" (W) x 12-1/4" (L)
Priority Mail APO/FPO Large Flat Rate Box	6" (H) x 12-1/4" (W) x 12-1/4" (L)	6" (H) x 12" (W) x 12-1/4" (L)
Priority Mail Express Tyvek Envelope	11-5/8" (W) x 15-1/8" (L)	11-5/8" (W) x 15" (L)
Global Express Guaranteed Tyvek Envelope	11-5/8" (W) x 15-1/8" (L)	11-5/8" (W) x 15" (L)
Priority Mail Tyvek Envelope	11-5/8" (W) x 15-1/8" (L)	11-5/8" (W) x 15" (L)
Priority Mail APO/FPO Tyvek Envelope (Mili-Pac)	11-5/8" (W) x 15-1/8" (L)	11-5/8" (W) x 15" (L)
Priority Mail Box Weight and Zone	2-7/8" (H) x 12-1/4" (W) x 13-11/16" (L)	2-7/8" (H) x 12" (W) x 13-11/16" (L)
Priority Mail Express Box Weight and Zone	3-1/8" (H) x 12-1/2" (W) x 15-5/8" (L)	3-1/8" (H) x 12" (W) x 15" (L)
Priority Mail Box Weight and Zone	3-1/8" (H) x 12-1/2" (W) x 15-5/8" (L)	3-1/8" (H) x 12" (W) x 15" (L)
Priority Mail Regional Rate Box	3" (H) x 14-1/2" (W) x 16-1/4" (L)	3" (H) x 12" (W) x 15" (L)
Priority Mail Box Weight and Zone	8-1/2" (H) x 12-1/4" (W) x 12-1/4" (L)	8-1/2" (H) x 12" (W) x 12-1/4" (L)

Business Calculator, Dimensions Entry

No impact, Business Postage Calculator only

Update Holidays for 2022

SQL script updating Domestic Jan 2022 database with the holidays for 2022

Update Special Drawing Rights (SDR) Rate

SQL script updating the SDR rate in the International database to 0.6997900

For Jan 2022: The average FY21 SDR is \$1.4290. The maximum registered indemnity (FY SDR x 30) is \$42.87. SDR rate for Price Engine: $1/1.4290 = 0.6997900629811057$

Update SKU Dictionary

Ingest the updated SKU Dictionary from Pricing Tool

USPS Retail Ground (zones 1-4) Change Request for BNS 65285

A customer will be able to purchase USPS Ground at all applicable channels when that is their choice of shipping product. It will no longer be constrained to HAZMAT content and attempts to purchase USPS Ground will no longer automatically be upgraded to PM when the contents are not HAZMAT.

BNS 106475 - Connect Local and Connect Regional

SQL adding Parcel Select Connect Local mail services for DDU entry only. The new mail services have been added for CNS, CNSB, and WebTools commercial customer maps that already had the Parcel Select Dest Entry services. New mail service IDs:

88 USPS Connect Local[CB]
88 USPS Connect Local[CP]
89 USPS Connect Local Flat Rate Bag Small[CB]
89 USPS Connect Local Flat Rate Bag Small[CP]
90 USPS Connect Local Flat Rate Bag Large[CB]
90 USPS Connect Local Flat Rate Bag Large[CP]
91 USPS Connect Local Flat Rate Box[CB]
91 USPS Connect Local Flat Rate Box[CP]

Sunday Hub Delivery is now an extra service returned by the USPS connect local products if SDC returns a delivery date of Sunday and the zip code orig/dest pair support it.

162 Sunday Delivery Hub

BNS 110094 - Noncompliance fee for not including dimensions

SQL script adding new price which is only available using GetPriceBySKU only. D87XXXXXXXXX0000. No impact on WebTools.

BNS 41832 - Machinable DSCF 3-Digit Pricing

Status	Service	Machinability	Entry Facility	Sortation Level	Questions
Current	PSDE	Machinable	DSCF	None Null 5D	Why does RE allow a 5D sort and not 3D when sort isn't

				3D (error) SCF (error) NDC (error) Mix (error)	currently a factor in pricing? Defaulted.
Proposed	PSDE	Machinable	DSCF	None (5D) Null (5D) 5D 3D (error) *SCF (new) NDC (error) Mix (error)	- How will current None/Null/5D change? They will not change.
Current	PSLW	Machinable	DSCF	None Null 5D 3D (error) SCF (error) NDC (error) Mix (error)	
Proposed	PSLW	Machinable	DSCF	No change	- How will current None/Null/5D change? (RE) No change.

1) What are the new service combinations the RE will be adding for PSDE and PSLW to support this BNS? What does Web Tools need to pass to return each? **RE to confirm, see more specific questions below:**

- Will RE return a price for PSDE Machinable DSCF when SortationLevel= “5D”? **Yes**
- Will RE return a price for PSDE Machinable DSCF when SortationLevel= “SCF”? **Yes**
- For PSDE Machinable DSCF when SortationLevel= “None” or “null”, will RE return pricing for “5D”? **Yes, “5D” defaulted**
- For PSDE Machinable DSCF when SortationLevel= “3D”, “NDC”, or “MIX”, will RE return an error? **Yes**
- For PSLW Machinable DSCF, will RE return a price when SortationLevel= “5D”? **Yes.**
- For PSLW Machinable DSCF, will RE return a price when SortationLevel= “3D”? **No.**
- For PSLW Machinable DSCF when SortationLevel= “None” or “null”, will RE return pricing for “5D”? **Yes.**

SQL script update

BNS 66393 - Non-Standard Fee

(NOT INCLUDED IN THIS PACKAGE)

Adds a surcharge based on dimensional length or volume for only competitive parcels. The additional fee, if applicable, will be broken out in the PriceDetails node, PriceDetail Key: N, Value: surcharge amount to 2 decimal places

- Parcels that exceed 22 inches but not greater than 30 inches
- Parcels that exceed 30 inches in length

- Parcels that exceed 2 cubic feet (3456 cubic inches)

BNS 66926 - Plus One Permanent Product

This is a change to the Online Domestic Business Calculator only

(NOT INCLUDED IN THIS PACKAGE) – no impact on WebTools

USPS Marketing Mail Letters

Carrier Route Letters

Weight Limit: 3.5 ounces

Price Category	Single-Piece Weight	Piece Price	No. of Pieces	Postage	Action
None, Saturation, Nonprofit	1 oz.	\$0.117	1	\$0.117	Delete
Full Service Intelligent Mail Option ¹		(\$0.003)	0	\$0.000	
Plus One		\$0.100	0	\$0.000	
Mail Services Total			1	\$0.117	
Extra Services Total				\$0.000	
Total				\$0.117	

BNS 78255 - USPS Tracking Plus

Name: RCALC - DOM	Type: Extra Service Code - 181	Extra Service: Scan Retention
Table Name: N/A		
Mail Services Affected: Bound Printed Matter (BPM), Library Mail Flats and Parcels, Media Mail Flats and Parcels, First Class Mail (FCM) Letters and Flats, USPS Marketing Mail.		
Description of Change: Added Postal Mail Services.		
Retention Period: For Scan Retention the time frame can be 6 months to 3 years, 5 years, 7 years, or 10 years.		

Name: RCALC - DOM	Type: Extra Service Code - 182	Extra Service: Scan plus Signature Retention
Table Name: N/A		
Mail Services Affected: Bound Printed Matter (BPM), Library Mail Flats and Parcels, Media Mail Flats and Parcels, First Class Mail (FCM) Letters and Flats, USPS Marketing Mail.		
Description of Change: Added Postal Mail Services.		
Retention Period:		

For Scan Retention the time frame can be 3 years, 5 years, 7 years, or 10 years.

Name: RCALC - INTL	Type: Extra Service Code - 181	Extra Service: Scan Retention
Table Name: N/A		
Mail Services Affected: Priority Mail Express International (PMEI), Priority Mail International (PEI), First Class Parcel International Service (FCPIS)		
Description of Change: When PMEI, PEI or FCPIS mail service is requested there will be an option to choose to hold the Letter or Parcel for a certain length of time.		
Retention Period: For Scan Retention the time frame can be 6 months to 3 years, 5 years, or 7 years.		

Name: RCALC - INTL	Type: Extra Service Code - 182	Extra Service: Scan plus Signature Retention
Table Name: N/A		
Mail Services Affected: Priority Mail Express International (PMEI), Priority Mail International (PEI), First Class Parcel International Service (FCPIS)		
Description of Change: When PMEI, PEI or FCPIS mail service is requested there will be an option to choose to hold the Letter or Parcel for a certain length of time.		
Retention Period: For Scan plus Signature Retention the time frame can be 3 yrs., 5 yrs. or 7 yrs.		

BNS 82871 - International Country Changes/Additions/Deletions

SQL script adds IPA mail services for the country of Sudan at price group 5

WebTools #2107 - Oversize SSF Rate Indicator

CalculateServicePrice and GetServicesWithPricing will return a new Attribute indicating Oversize pricing is being used. Below is a screen shot showing the response returned in the Price Engine Test Tool.

Key: OverSized

Value: true

Changes to the Database Structure

None for this release.

Updated version number and sign all DLLs

The library versions remain the same 11.10.0.0.

Updated databases

New databases have been created for this release: USPS_DOM_2022_01 and USPS_INTL_2022_01 for domestic and international respectively.

There are SKU Dictionary updates in this release. They need to be applied to the 2021_02 databases. They are located in the SKUDictionary folder. A batch file, sql_update_import.bat, has been provided to assist with their deployment. Execute the batch file by passing the targeted database. Note the batch file assumes the databases are LOCAL.

To execute and update your domestic and international databases:

sql_update_import.bat USPS_DOM_2022_01

sql_update_import.bat USPS_INTL_2022_01

Impact on Existing Applications

You will have to rebuild your applications.

Instructions

1. Copy the DLLs
2. Restore the databases (SQL Server 2016 backups). The database backups are not included and can be downloaded separately. Note: the SQL script files have been included in the package for those that cannot restore the SQL Server 2016 backups. SQL Scripts should be executed in the order shown below.

Note that scripts “CreateClient_PriceCalc_014X0.sql” and “CreateClient_CNS_008B3.sql” for domestic and “CreateClient_CNSv2_008B3.sql for international must be executed on the 2021_01 and 2020_01 databases.

Contents

Description	File
Folder	Database
Folder	Domestic
Database	USPS_DOM_2021_01
SQL Script	B-470878 Jan 2021 Price Change 20201113 - RateCalc Dom SKU Based.sql

	SQL Script	B-470897 BNS 5644 - Update Holidays for 2021-2022.sql
	SQL Script	CreateClient_CNS_008B3.sql
	SQL Script	Update Returns SKUs.sql
	Database	USPS_DOM_2020_01
	SQL Script	CreateClient_CNS_008B3.sql
Folder		International
	Database	USPS_INTL_2021_01
	SQL Script	B-470878 Jan 2021 Price Change 20201113 - RateCalc Intl SKU Based.sql
	SQL Script	B-476012 BNS 5295 - CR 52951 New Price Groups for PS 3700 – Implement.sql
	SQL Script	B-476367 Update SDR Value
	SQL Script	CreateClient_CNSv2_008B3.sql
	SQL Script	CreateClient_PriceCalc_014X0.sql
	SQL Script	Jan 24, 2021 Release 20201118 - Country Information.sql
	Database	USPS_INTL_2020_01
	SQL Script	CreateClient_CNSv2_008B3.sql
	SQL Script	CreateClient_PriceCalc_014X0.sql
Folder		SKUDictionary
	Database	USPS_DOM_2021_01, USPS_INTL_2021_01
	SQL Script	B-478706_SKUColumnTitles.sql
	SQL Script	B-478706_SKUColumnTitles_Truncate.sql
	SQL Script	B-478706_SKUCrossReference.sql
	SQL Script	B-478706_SKUCrossReference_Truncate.sql
	SQL Script	B-478706_SKUDictionaries.sql
	SQL Script	B-478706_SKUDictionaries_Truncate.sql
	SQL Script	B-478706_SKUVariation.sql
	SQL Script	B-478706_SKUVariation_Truncate.sql
	Batch Script	sql_update_import.bat
Folder		DLL
	Rate Engine Framework	RateEngine_Framework.dll
	Business Framework	RateEngine_Business.dll
	Domestic Business Rate Engine	RateEngine_DomBusiness.dll
	International Business Rate Engine	RateEngine_IntlBusiness.dll
	Service Delivery Extensions	ServiceDeliveryExtensions.dll
	Customs Forms Engine	CustomsFormsEngine.dll
Design Model		Pricing Engine.pdf
Release Notes		USPS Pricing Engine SDK 11_11_0_0.pdf

Reported Defects and Change Request

None at this time	
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